



The Sensory Sensitive Infant

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Diagnosing sensory over-sensitivity (often referred to as sensory defensiveness) is especially challenging during infancy. This is because many of the symptoms of sensory over-sensitivity in infancy are often the same symptoms observed for a variety of other reasons and/or medical conditions. An infant with a sensory over-sensitivity experiences irritability and distress with far greater intensity and frequency than do most infants. Learning to read your infant's non-verbal cues, as well as having strategies available to assist your infant in coping with the demands of the environment, will help your infant feel safe and secure, improve social interaction, and allow him/her to experience pleasure.

What is Sensory Defensiveness?

Sensory defensiveness is an over-sensitivity or an over-reaction to stimuli that most individuals perceive as benign or unimportant. When sensory over-sensitivity presents during infancy, it is often because the infant has an immature nervous system; one that is more fragile and vulnerable than that of a typically developing infant. As a result, the following behaviors may be observed:

- Difficulty tolerating being held by others (especially other than by the primary caregiver)
- Cries a lot and is unable to calm, even with adult assistance
- May have erratic or disruptive sleep patterns (may have difficulty staying awake in the presence of background noise and activity, or conversely, may have difficulty sleeping at night)
- Dislikes having head tipped backward (as often occurs during diaper changing or hair washing)
- Does not like to be on his tummy
- Avoids use of his hands
- Has difficulty eating (from a bottle/breast, spoon, or both)
- Has difficulty tolerating change in food
- May be overly sensitive to bright lights
- May have exaggerated startle responses to loud noise or sudden movement
- May be overly sensitive to background noises such as the sound of a hair dryer, vacuum cleaner or toilet flushing

Consistently Inconsistent

Infants with sensory defensiveness often display behaviors that appear inconsistent. This apparent inconsistency reflects the nervous system's attempts to simultaneously respond to stimuli while at the same time attempting to protect itself by reducing input. As a result, variable responses are observed. In extreme situations, when the effects of sensory stimuli become too overwhelming for the fragile nervous system of an infant to cope, they may "shut-down" by falling asleep or appearing under-responsive. This behavior is typically observed among very young infants who are exposed to bright lights and loud noises; they fall asleep and are unable to be aroused despite the intensity of stimuli around them. Once the infant is placed in an environment free of excessive sensory stimulation (usually reduced light and noise) the infant wakes and is ready to engage. This "shutting-down" unresponsive behavior is believed to be a protective mechanism within the fragile nervous system to prevent or cope with over-stimulation.



Reading Infant Cues

Infants are unable to communicate verbally therefore it is vitally important that parents and caregivers be able to read



the non-verbal cues our infants give us. NCAST (Nursing Child Assessment Satellite Training) has studied infant communication and identified the following engagement cues as an optimal time for infant learning. They have also identified disengagement cues as an indication that the child may need

a break from the activity. These same cues can be used to help us determine when the infant may need more or less sensory input for alerting or calming.

Engagement cues that indicate an optimal time for learning and the introduction of new or added stimuli:

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| ■ Babbling | ■ Brow raising |
| ■ Facial gaze | ■ Eyes wide and bright |
| ■ Giggling | ■ Facial brightening |
| ■ Mutual gaze | ■ Hands open, fingers bent slightly |
| ■ Mutual smiling | ■ Turning head toward caregiver |
| ■ Immobility | |
| ■ Raising head | |

[continues]

Subtle disengagement cues that may indicate that the infant is beginning to experience stress and that environmental stimuli may need to be altered or reduced:

- Cling posture
- Eye blink
- Eyes clinched
- Facial grimace
- Fast breathing
- Finger straightening
- Frown, brow lowering
- Gaze aversion
- Hand to ear or eye
- Hiccups
- Increase in sucking noise
- Lip pursing
- Yawn
- Wrinkled forehead
- Clasping self on any part of body

Adapting Sensory Input

We constantly provide our infants with sensory stimulation through our handling and movement of the infant during daily care activities such as eating, dressing, and bathing as well as through play and social interaction. As we read our infant's non-verbal communication, we can begin to adapt the stimuli we provide based on the cues the infant gives. Below are some suggestions of how to adapt stimuli for a child who is experiencing signs of distress or over-sensitivity to stimulation.



Vestibular stimulation refers to sense of movement through space. Sudden and fast movements should be avoided. Inversion of the head (as typically occurs during hair washing or often occurs when lying the infant down for a diaper change) can be especially threatening. Vertical rocking is the up and down bouncing that many parents do instinctively while carrying their infant. This type of movement stimulation has been shown to have a calming influence.

Tactile stimulation refers to the sense of touch. Be aware of your infant's response to touch. As much as possible, be predictable with your touch. Maintaining constant, even pressure is usually more calming and organizing to the infant than if you constantly change the way you hold or approach your baby. Many infants who appear defensive to touch respond well to swaddling.

Visual, auditory, and olfactory stimulation is present constantly. Be conscious and aware of background stimuli in your infant's environment. Infants with sensory defensiveness often respond better to soft lamp light as compared to bright overhead florescent lighting. Some children calm with white noise in the background, others do better with soft classical music and others do better by reducing all forms of noise as much as possible. The smell of vanilla and lavender also have a calming influence and can be introduced into the environment through the use of many commercially available products and scented oils.

Summary

Infants with sensory over-sensitivity usually display a variety of inconsistent behaviors as they attempt to respond to stimuli and also attempt to protect themselves from stimuli that are too overwhelming for their nervous system

to handle. As a caregiver of a sensory defensive infant, you must become skilled at reading your infant's cues as well as being increasingly aware of the background stimuli present in your infant's environment. Adapt the background stimuli or your approach to your infant based on the cues they provide you. Doing this will help your infant feel safe and secure, and this in turn allows the infant to learn and engage in social interaction.

- Be aware of the stimuli in the infant's environment
- Observe the infant's response
- Adapt your input based on the infant's response

Because children with sensory defensiveness can be complex and diverse in their needs, an evaluation by a pediatric occupational therapist is necessary to develop a program designed to meet the specific needs of your child. The earlier this occurs, the better it will be for your child. For more information on this topic, or to schedule an evaluation, please contact ddenniger@sovrehab.com.

You Spoke, We Listened

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Do you have questions or concerns regarding your child's development? Sovereign Pediatric Therapy offers free screenings. Call any office to schedule.

Want more information on how to help your infant with sensory processing challenges? Please join us for an informational presentation by our occupational therapy staff.

Chicago location: Tuesday, February 21, 6:30-7:30 pm
Call 773.755.7566 for reservations.

Crystal Lake location: Tuesday, February 21, 7:00-8:00 pm
Call 815.477.4788 for reservations.

Naperville location: Monday, February 13, 7:30-8:30 pm
Call 630.585.7337 for reservations.



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